

Notice of Allowability

Application No.

09/812,218

Examiner

Susy N Tsang-Foster

Applicant(s)

SHIDA ET AL.

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on 12/22/2003.
2. ☒ The allowed claim(s) is/are 6-17.
3. ☒ The drawings filed on 19 March 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

IN THE CLAIMS:

Claims 18-26:

Please cancel non-elected claims 18-26.

IN THE SPECIFICATION:

Please amend the specification as follows:

On page 1, line 3:

The present application claims priority to Japanese Applications Nos. P2000-076615 filed March 17, 2000, and P2000-076606 P2000-076616 filed March 17, 2000, which applications are incorporated herein by reference to the extent permitted by law.

On page 9, line 12:

Initially, for instance, on a belt-shaped positive electrode collector 25a (see Fig. 5) whose thickness is in the range of 5 μm to 50 μm , a plurality of the positive electrode mixture layers 26 whose thickness is in the range of 50 μm to 300 μm is intermittently formed in order to produce a belt-shaped positive electrode 21a (see Fig. 5). The belt-shaped positive electrode 21a becomes the above-mentioned positive electrode 21 (see Fig. 3) by separating individually. Specifically, producing the belt-shaped positive electrode 21a is conducted with the following manners. First, positive electrode mixtures including positive electrode active materials, conducting agents such as carbon black or graphite, and binders such as polyvinylidene fluoride and so on, are diffused to solvents such as dimethylformaldehyde or N-methylpyrrolidone so as to make positive electrode mixture slurry. Then, the positive electrode mixture slurry is intermittently applied onto a surface and a back of the belt-shaped positive electrode collector 25a, then the positive electrode mixture slurry applied onto the belt shaped positive electrode collector 25a, then, the belt-shaped positive electrode collector 25a is dried and subjected to compression molding. The belt-shaped positive electrode collector 25a is made of metal foil such as aluminum (Al) foil, nickel (Ni) foil or stainless foil.

On page 19, line 5:

Producing the belt-shaped negative electrode is conducted with the following manners. First, lithium metal, lithium alloy such as alloy of lithium and aluminum, or negative electrode

materials capable of occluding and releasing lithium are mixed with binders such as polyvinylidene fluoride uniformly, then diffused to solvents such as dimethyl formaldehyde or N-methylpyrrolidone so as to make negative electrode slurry. After this, the negative electrode slurry is intermittently applied on a surface and a back of the belt-shaped negative electrode collector made of metal foil such as copper (Cu) foil, then the negative electrode slurry applied onto the belt-shaped negative electrode collector is dried and subjected to compression molding.

2. Reasons for present amendment:

Claims 18-26 were withdrawn from consideration and election was made without traverse.

Amendments to the specification are made in general to correct typographical errors and to remove an extraneous paragraph starting on page 19, line 5 in the amendment filed on 12/22/2003. In the amendment filed on 12/22/2003, there are two paragraphs both starting on page 19, line 5. It appears that the second paragraph is identical to the first paragraph except “fluoride” is missing after “polyvinylidene”. For the purposes of advancing prosecution, the Examiner interprets that the applicant intended the first paragraph to be the amended paragraph. Examiner Tsang-Foster spoke briefly with Mr. Christopher Rauch on 3/19/2004 and the Examiner stated that any disagreements to these typographical changes made in the specification can be remedied by a 312 amendment after further discussion with the Examiner. It is noted that “ μ m” is inserted into the paragraph starting on page 9, line 12 because it appears that applicant unintentionally deleted “ μ m” from this paragraph after “300”.

3. The following is an examiner's statement of reasons for allowance:

The closest prior art of record, McAleavey (US 5,496,407) discloses a method of manufacturing a battery comprising the step of moving a knife relative to a web to adjust the thickness of the electrolyte material on the web (col. 2, lines 23-27 and col. 4, line 63 to col. 5, line 15) but the reference does not disclose, teach, or suggest the distinguishing feature of controlling the thickness of the electrolyte layer by adjusting a roller that is positioned on a side of the conveyor opposite the delivery opening.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications should be directed to examiner Susy Tsang-Foster, Ph.D. whose telephone number is (571) 272-1293. The examiner can normally be reached on Monday through Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached at (571) 272-1292.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

Art Unit: 1745

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

st/ 

Susy Tsang-Foster
Primary Examiner
Art Unit 1745